

Selective Fetoreduction: Report of Two Cases

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Abstract

Objective: The purpose of this study is to evaluate selective fetoreduction in two twin pregnancies which have one of abnormalities

Case: 28 and 34 years old two patients have 18 and 16 weeks gestation and one of abnormal sibling, respectively. Vertebral anomaly and oligohydramnios were found in the first case, and the encephalocele was found in the second case. Transabdominal ultrasound guided selective fetoreduction was performed in both anomaly fetuses, and no complications were occurred in early period. Preterm labor was occurred in both cases at 32 and 35 weeks of gestation. The first case was delivered vaginally, and the second case due to previous cesarean section was delivered abdominally. The babies were 1,700 g and 2,400, respectively. There was not found a problem in infants in the first 3 months of postpartum period.

Conclusion: Due to potential risks of multiple pregnancies for mother and fetus, we think that selective fetoreduction is useful for the anomalous one of sibling twin.

Keywords: Selective fetoreduction, twin pregnancy.

Selektif fetoredüksiyonun değerlendirilmesi: İki olgu

Amaç: Bu çalışmanın amacı ikizlerden birinin anomalili olması nedeniyle selektif fetoredüksiyon (SF) uygulanan iki olguyu değerlendirmektir.

Olgu: 28 ve 34 yaşında, sırasıyla 18 ve 16 haftalık, ikiz eşlerinden biri anomalili iki olgu incelendi. İlk olguda vertebral anomali, oligohidramnios, ikinci olguda ise ensefalosel tespit edildi. Transabdominal ultrason eşliğinde her iki anomalili fetüse selektif fetosit uygulandı ve erken döneminde her hangi bir komplikasyon izlenmedi. Her iki olguda, gebeliğin 32 ve 35 haftalarında erken doğum eylemi gelişti. İlk olgu normal vaginal, ikinci ise eski sezaryen sekiyo nedeniyle sezaryen ile doğumu gerçekleştirildi. Sırasıyla 1,700 g ve 2,400 g iki bebek doğurtuldu. Postpartum 3 aylık dönemde yenidoğanlarda bir anomali izlenmedi.

Sonuç: Çoğul gebeliklerin anne ve fetus için olası riskleri nedeniyle, anomalili ikiz eşine selektif fetoredüksiyon uygulanmasının daha yararlı olacağı kanaatindeyiz.

Anahtar Sözcükler: Selektif fetoredüksiyon, ikiz gebelik.

Introduction

It was found in multiple pregnancies that the incidence of fetal structural and chromosomal anomalies is higher as well as bad maternal and fetal obstetric outcomes.^[1] In recent years, the chance of detecting fetus with anomaly during early pregnancy has increased by the improvement of antenatal follow-up.

The expectant approach in multiple pregnancies where there is fetus with anomaly is to choose either to end the pregnancy or to do selective fetoreduction (SF).^[2]

Selective fetoreduction is to apply fetocide on the fetus with anomaly in multiple pregnancies. It is aimed to decrease maternal morbidity, to prevent early labor, to recover the prognosis of nor-

mal fetus and to terminate fetus with anomaly due to socio-economical and psychological reasons.

Case Report

Case 1

Twenty-eight years old (G3P1) twin pregnant was referred to our center since anomaly was detected in one of the fetuses. It was learnt that the patient got pregnant spontaneously. In her ultrasonographic examination, 18 weeks and 4 days old normal fetus without fetal anomaly and its 18 weeks old twin fetus with oligohydramnios and vertebral angulation were detected. The mother was informed about her gestational status and the process which can be done. By the approval of the family, selective fetocide was decided. Accompanied by transabdominal ultrasonography, it was entered into the fetal cardiac cavity by 22 gauge 120 mm spinal needle and intracardiac 2.0 cc 7.5% potassium chloride (KCl) was injected. The process was terminated after 7 minutes of observation in the fetus who developed cardiac arrest. No complication was observed during early period. Preterm labor developed at 32nd week in the patient who had no problem at her normal follow-up. 1,700 g baby girl was delivered by normal vaginal way. It was found in the examination which was done three months after the delivery that the baby was healthy.

Case 2

Thirty-four years old (G2P1) pregnant with old section was followed up as a twin pregnancy developing spontaneously and externally. Upon detecting anomaly in one of the fetuses, she was referred to our clinic. In her ultrasonographic examination, 16 weeks old twin pregnancy was detected; while one of the fetuses was normal, other one had encephalocele. The family was informed about the fetuses and selective fetocide was suggested. By the approval of the family, it was entered into the fetal cardiac cavity by 22 gauge 120 mm spinal needle accompanied by transabdominal ultrasonography and intracardiac 2.0 cc 7.5% KCl was injected. It was observed for 7 minutes after cardiac arrest developed; no viability was seen and the patient was taken to the follow-up. The cesarean was applied at 35th gesta-

tional week due to preterm action and old section and a healthy 2,300 g baby boy was delivered. It was found in the examination which was done three months after the delivery that the baby was healthy.

Discussion

The administration is hard in twin pregnancies where a fetus has anomaly, because it is possible to affect normal fetus by the decision taken for fetus with anomaly. If it is a minor anomaly (cleft lip), the administration is not different than a normal pregnancy; however, two fetuses should be considered in the administration of major congenital anomalies. Major congenital anomalies involve structural or chromosomal anomalies causing fetal morbidity and mortality increase.^[2]

The termination of whole pregnancy causes problem in multiple pregnancies especially in those who want to have child or where it develops as a result of infertility treatment. Again, the family may meet long-term morbidity of fetus expose to preterm labor by expectant approach and living fetus with anomaly. Selective fetoreduction is a well accepted option and Eddleman et al.^[3] published a series of 300 cases. In this series, 164 of them were twin, 32 of them were triplet and 4 of them were quadruplet. It was reported that pregnancy loss was 4% and 84.4% of deliveries were at 32nd gestational weeks and above when selective termination was applied. Evans et al.^[4] found pregnancy loss as 7.5% in their series of 402 cases.

Techniques described at second trimester for selective fetoreduction are exsanguinating fetal heart by puncture, calcium gluconate infusion by cardiac puncture, air embolization through umbilical vessels in company with fetoscopy and intracardiac potassium chloride injection. Potassium chloride injection was widely accepted in selective termination process and multifetal pregnancy termination process where fetuses were followed up normally in multiple pregnancies by the verification of efficiency and reliability of potassium chloride injection.^[5] Picking wrong fetus, technical incompetency of the person who will perform the process, premature rupture of membrane, infection and the loss of whole pregnancy are the undesired early period complications of SF.

Conclusion

In conclusion, SF is a well accepted process since maternal and fetal risks brought by multiple pregnancy are decreased for normal fetus by terminating fetus with anomaly and it affects families in a positive way both emotionally and psychologically. When SF is performed by experienced people, the chance of success is high while the risk of pregnancy loss is low.

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